

What is claimed is:

1. An Adaptive Criteria Filtering System (ACFS) that assembles sort criteria for an

Information Sorting Mechanism (ISM), the ACFS comprising:

- an **instruction port** configured to receive an instruction list containing zero or more data element identifiers;
- a **secondary port** configured to receive secondary sort criteria;
- an **output port** configured to send an adapted list of data element identifiers to the ISM and/or to the mechanism that invoked the ACFS; and
- a **filter** configured to:
 - ◆ receive the instruction list from the instruction port,
 - ◆ receive the secondary sort criteria from the secondary port,
 - ◆ create the adapted list by merging the instruction list with relevant portions of the secondary sort criteria which may include the entire secondary sort criteria, and
 - ◆ send the adapted list to the output port;

whereby the ACFS adapts secondary sort criteria to user-specified sort criteria, giving the user control over the primary sort order while retaining the benefit of the secondary sort criteria.

2. The ACFS recited in claim 1 wherein:

- the secondary sort criteria includes a default list having at least one data element identifier; and

- the filter assembles the adapted list consisting of the contents of the instruction list followed by each of the identifiers from the default list that are not in the instruction list.

3. The ACFS recited in claim 1 wherein:

- the secondary sort criteria includes a list having at least one primary data element identifier and an associated list of zero or more implied data element identifiers for each primary data element identifier; and
- the filter assembles the adapted list by starting with an empty adapted list, iterating through the instruction list, and, for each item in the instruction list adding, without regard to order, one or both of the item itself and the implied data element identifiers, if any, that is associated with the item.

4. The ACFS recited in claim 3 wherein the filter first adds the implied data element identifiers and then adds the item.

5. The ACFS recited in claim 4 wherein the implied data includes at least one of the following:

- City IMPLIES Area Code;
- City IMPLIES State;
- City IMPLIES Province;
- City IMPLIES Country, State;
- City IMPLIES Country, Province;
- State IMPLIES Country;
- Company Name IMPLIES IsRecruitingAgency; and/or
- Job Title IMPLIES IsContractPosition.

6. The ACFS recited in claim 3 wherein the filter first adds the item and then adds the implied data element identifiers.

7. The ACFS recited in claim 6 wherein the implied data includes at least one of the following:

- Area Code IMPLIES City;
- State IMPLIES City;
- Province IMPLIES City;
- Country IMPLIES State; and/or
- Country IMPLIES State, City.

8. The ACFS recited in claim 3 wherein the filter adds the implied data element identifiers and does not add the item.

9. The ACFS recited in claim 8 wherein the implied data includes at least one of the following:

- City IMPLIES AreaCode-City;
- City IMPLIES State-City;
- City IMPLIES Province-City;
- City IMPLIES Country-State-City; and/or
- City IMPLIES Country-Province-City.

10. The ACFS recited in claim 3 wherein the filter does not add any specific data element identifier to the adapted list if the adapted list already contains the identifier.

11. The ACFS recited in claim 3 wherein the filter adds every implied data element identifier that is implied by any implied data element identifier.

12. The ACFS recited in claim 1 wherein:

- the secondary sort criteria includes a list having at least one default data element identifier and a list having at least one primary data element identifier and an associated list of zero or more implied data element identifiers for each primary data element identifier; and
- the filter assembles the adapted list by starting with an empty adapted list and:
 - ◆ iterating through the instruction list, and, for each item in the instruction list adding to the adapted list, without regard to order, one or both of the item itself and the implied data element identifiers, if any, that is associated with the item; and
 - ◆ iterating through the default list, and, for each item not in the adapted list, adding to the adapted list, without regard to order, one or both of the item itself and the implied data element identifiers, if any, that is associated with the item.

13. The ACFS recited in claim 1, further comprising a control port configured to receive an optional command; and wherein the filter reads the command from the control port, and, if the command indicates that the secondary sort criteria should not be used, the filter creates an adapted list identical to the instruction list.

14. The ACFS recited in claim 1 wherein the ISM is comprised of a database, a database management system, a search engine supporting full-text search and sorting by data elements within the text, and/or a sorting library or code module.

15. The ACFS recited in claim 1 wherein each data element is comprised of a database field, tagged data including HTML, XML, or SGML, meta data, and/or a document.

16. The ACFS recited in claim 1 wherein the secondary port is comprised of static data stored in a storage means.

17. The ACFS recited in claim 1 wherein the secondary port is configured to interact with code; and wherein the filter is configured to invoke the code in a procedural, object-oriented and/or other programmatic fashion.
18. The ACFS recited in claim 1 wherein the instruction port is coupled to an HTTP Web server, or coupled to a computer-readable media, or configured to communicate via a standard electronic messaging protocol.
19. The ACFS recited in claim 1 wherein the output port is configured to interact with code; and wherein the filter is configured to invoke the ISM in a procedural, object-oriented and/or other programmatic fashion.
20. The ACFS recited in claim 1 wherein the ACFS is implemented as a script embedded in, and/or linked to, a document employing a markup language including HTML, XML or SGML..
21. The ACFS recited in claim 1 wherein the ACFS is implemented as a desktop, client-server, and/or n-tier application.
22. The ACFS recited in claim 1 wherein the filter is further configured to translate the adaptive list to the syntax and/or the format of the target ISM.
23. The ACFS recited in claim 1 wherein each data element is part of a data object, the data object having at least one data unit of employment information.
24. A sort system comprising:
- an ACFS as recited in claim 1; and
 - an ISM coupled to the ACFS, to a data producer, and to a data consumer, the ISM being configured to receive the sort criteria in a predetermined syntax, receive the

data from the data producer, sort the data according to the sort criteria, and forward the sorted data to the data producer.

25. A search system comprising:

- an ACFS as recited in claim 1;
- a search port configured to receive search criteria;
- an Information Location Mechanism (ILM) configured to locate zero or more data objects that match the received search criteria;
- an Information Formatting Mechanism (IFM) configured to format data;
- an ISM coupled to the ACFS, to the ILM, and to IFM, the ISM being configured to receive the sort criteria in a predetermined syntax, receive a plurality of data objects from the ILM, sort the data according to the sort criteria, and forward the sorted data objects to the IFM; and
- a client process and VDU to display the formatted data objects.

26. The search system recited in claim 25 wherein the data formatting employs a markup language including HTML, XML or SGML.

27. The search system recited in claim 25 wherein the contents of at least one data element of at least one data object contains employment information.

28. An adaptive criteria filtering method for assembling sort criteria for an Information Sorting Mechanism (ISM), the method comprising:

- receiving an instruction list having zero or more data element identifiers;
- receiving secondary sort criteria;

- creating an adapted list of data element identifiers by merging the instruction list with relevant portions of the secondary sort criteria which may include the entire secondary sort criteria; and
- sending the adapted list to the ISM and/or to the mechanism that invoked the method;

whereby the method adapts secondary sort criteria to user-specified sort criteria, giving the user control over the primary sort order while retaining the benefit of the secondary sort criteria.

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